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(11) EP 0 911 396 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
06.05.1999 Bulletin 1999/18

(43) Date of publication A2:
28.04.1999 Bulletin 1999/17

(21) Application number: 98122014.8

(22) Date of filing: 02.12.1996

(84) Designated Contracting States:
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
NL PT SE

(30) Priority: 30.11.1995 US 564955
25.03.1996 US 621859

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
96940934.1 / 0 876 509

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(51) Int Cl.⁶: C12N 15/10, C12N 15/64,
C12Q 1/68
// C07K14/435, C07K14/545,
C12N9/86, C12N9/38,
C12N15/52

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(54) **Methods for generating polynucleotides having desired characteristics by iterative selective and recombination**

(57) The present invention relates to a method for evolving a polynucleotide encoding a plurality of genes, e.g. multiple genes forming a multicomponent pathway. The method involves shuffling of polynucleotides by conducting a polynucleotide amplification process on overlapping segments of a population of variants of a polynucleotide encoding a plurality of genes under conditions whereby one segment serves as a template for extension of another segment to generate a population of recombinant polynucleotides. This population is screened for a recombinant polynucleotide encoding a plurality of genes having a desired property.

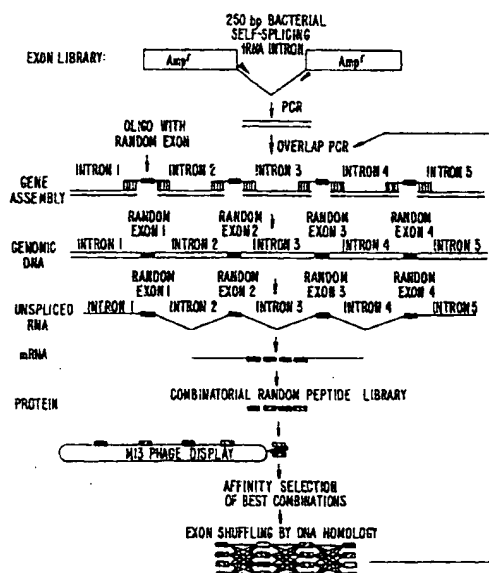


FIG. 20.



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Application Number
EP 98 12 2014

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 4 March 1999	Examiner Hornig, H
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document but published on, or after the filing date D : document cited in the application L : document cited for other reasons S : member of the same patent family, corresponding document	

EPO FORM 1503 03/92 (P4/C01)



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**ANNEX TO THE EUROPEAN SEARCH REPORT
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